EXECUTIVE SUMMARY

HIV/AIDS Annual Report – February 2007
State of Arizona

General Comments:

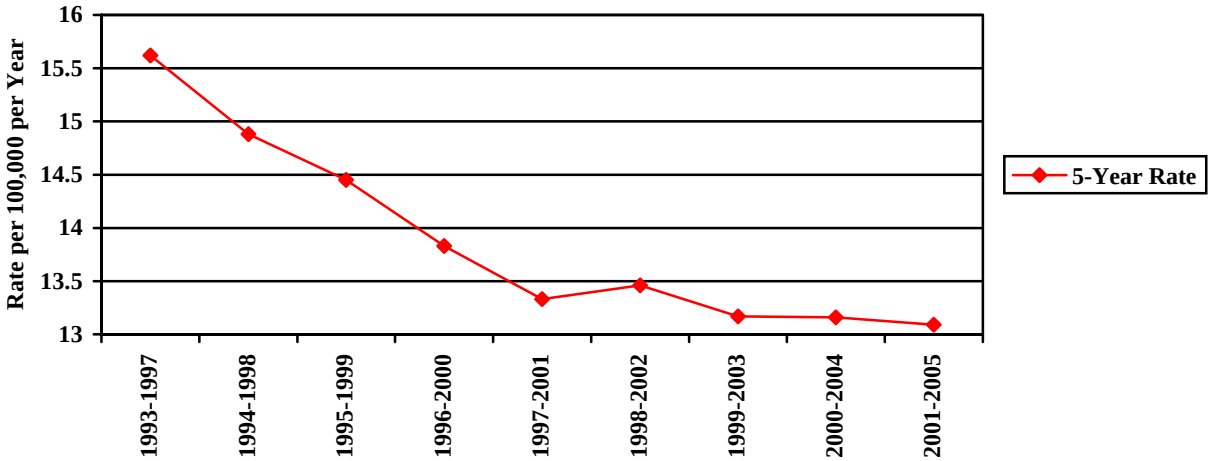
In Arizona's HIV/AIDS reporting, estimates of incidence are based upon the sum of new HIV cases, and new AIDS cases which were not diagnosed as HIV infections in any prior calendar year. These cases are referred to as *emergent* cases and are used as an estimate of incidence. Cases of HIV/AIDS can only be counted as emergent in the year they were first diagnosed with HIV infection. Persons who were emergent as HIV and diagnosed as AIDS in the same calendar year are counted as emergent AIDS to avoid double counting. This method is the most straightforward method available for estimating incidence.

This report includes current (2/2/07) estimated prevalence, 2005 reported *emergent* case counts, and the 2005 population estimate for each county or region. For comparison to prior period prevalence or incidence, please refer to previous annual reports. Incidence estimates for the 5-year reporting timeframes (1996-2000 and 2001-2005) used in this report are expressed as annualized rates for purposes of valid comparison with the 5-year timeframes in prior annual reports, or single-year annual rates provided elsewhere. These annualized 5-year rates may be regarded as the average annual rate across the 5 years in the reporting timeframe.

Current Data:

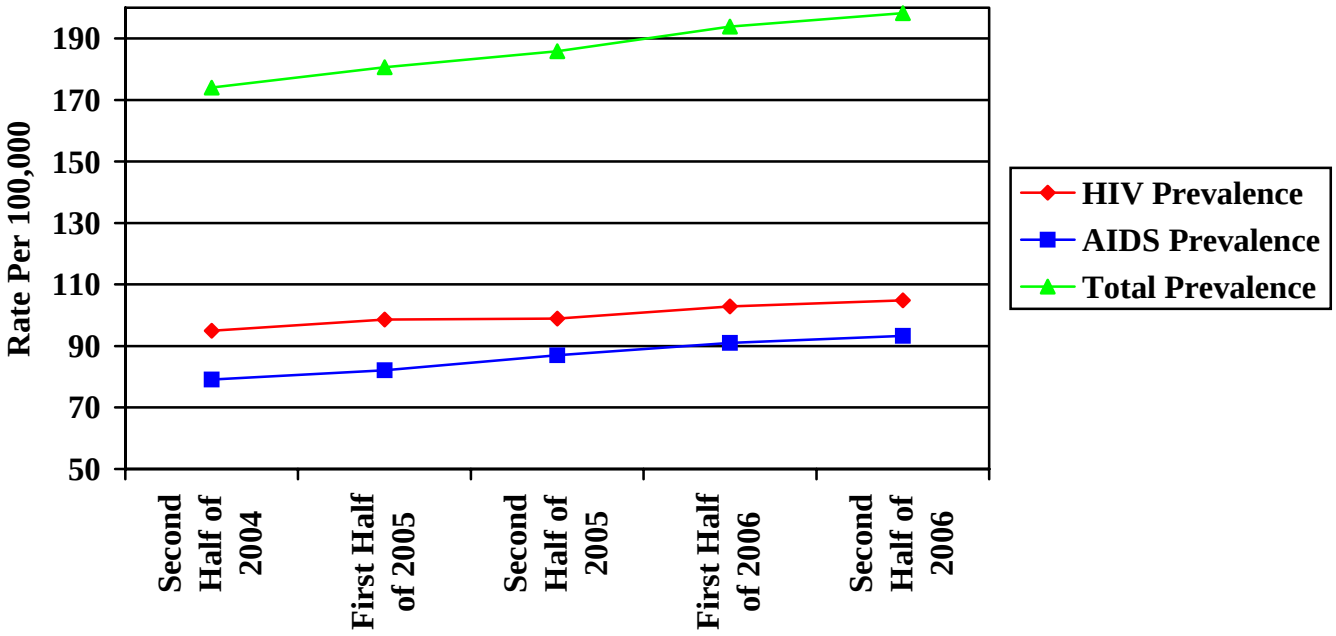
After tracking trends in emergent HIV infection, and prevalence for 3 years, a sufficient body of data now exists for trend patterns to be discussed. The State of Arizona is currently experiencing some of the most rapid population growth in the nation. Most of that growth is taking place in the Phoenix Metropolitan area. Recent trends show the 5-year HIV/AIDS emergence case rate has been declining. 5-year average case rate trends are shown in Figure 1 below. 5-Year average rates are not as subject to year-on-year variance as annual rates.

Figure 1: Arizona 5-Year Emergent HIV/AIDS Case Rate Trend



While emergent rates were declining, HIV/AIDS prevalence rates have been rising. The increase in prevalence rates appears to be due to the efficacy of multi-drug treatments for HIV infection, which have sharply reduced HIV-related death. Prevalence Trends are shown in Figure 2 below.

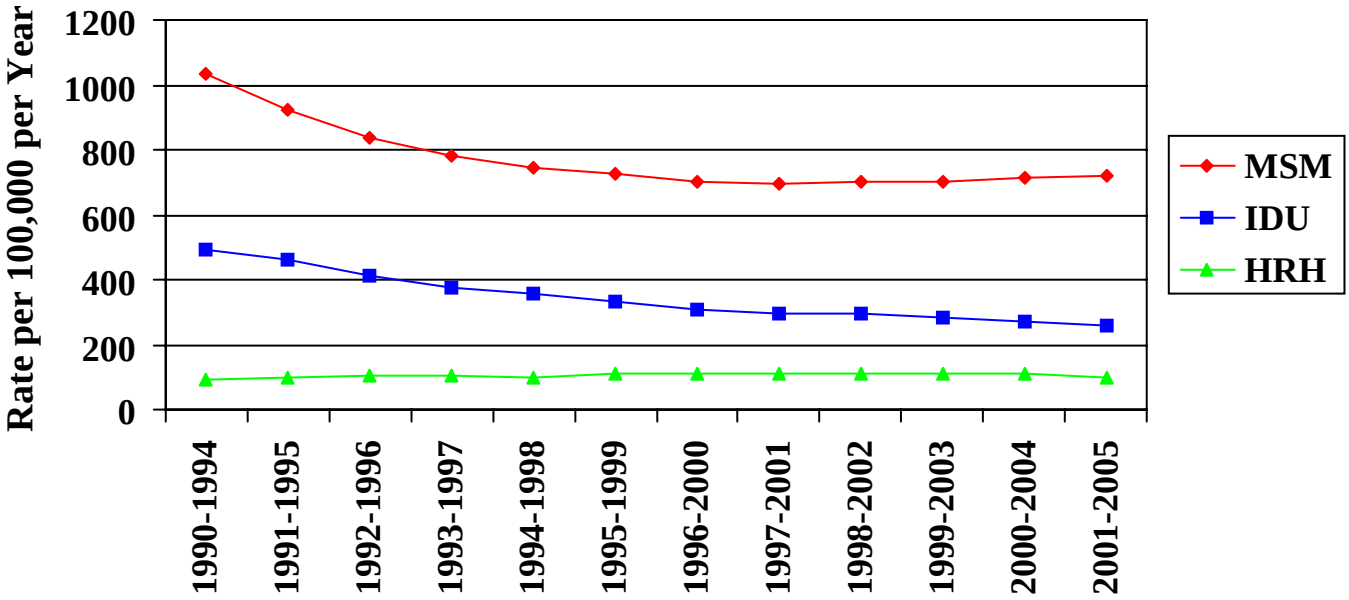
Figure 2: Arizona HIV/AIDS Prevalence Rate Trend



If current prevalence trends continue, within the next 3 to 5 years the number of persons living with AIDS in Arizona will surpass the number of persons with HIV infection who have not been diagnosed with AIDS. Because the burden of HIV-related disease is greater among persons with AIDS, treatment, utilization, and continuity of care will become increasingly critical issues.

While emergent rates have been declining, that trend has not been consistent across all risk categories. Rates of emergent HIV infection among persons reporting injection drug use (IDU) have declined consistently, and among persons reporting high-risk heterosexual activity (HRH) they seem to have remained level since 1990. But among men who have sex with men (MSM) emergent HIV rates declined to a low in 1999 and have risen slightly since then. These trends are shown in Figure 3 below. Because of different rate patterns between different risk groups, the proportion of the HIV epidemic in MSM is increasing. The proportion of emergent cases that are MSM-related has risen from a low of 60% in 1995 to 73% in 2006. These data, together with study data not reported here, suggest a measurable resurgence in the HIV epidemic in MSM, and may contribute to the slower decline of the emergent HIV/AIDS case rate since 1999.

Figure 3: Arizona 5-Year Emergent HIV/AIDS Rates by Reported Risk



Pediatric HIV Infection:

In 2005 there were 9 cases of emergent HIV infection among children under age 13 in Arizona. This was a greater number than in any single year since 2000. Six of these cases (67%) were in African American children. African Americans constitute just 3.5% of the 2005 Arizona population. All 9 cases were due to mother-to-child transmission (vertical transmission). At the time of this report, the number of pediatric cases of HIV infection reported in 2006 is 3.

Urbanization of HIV:

Rates of HIV/AIDS prevalence and emergence differ sharply between counties in Arizona that are primarily urban, and those that are primarily rural. At the time of this report, 86% of reported HIV/AIDS prevalent and emergent infections occur in urban counties that contain 76% of the state population. The average rate of HIV/AIDS emergent infection, and HIV/AIDS prevalence in urban counties in Arizona is between 2 and 2.5 times greater than the average in rural counties.

Race/Ethnicity Disparities:

Rates of HIV/AIDS prevalence and emergence differ sharply between African Americans and other race/ethnicity groups. African Americans are the only race/ethnicity group in Arizona that experiences such a severe disparity of HIV impact. Currently the emergent HIV/AIDS rate among African Americans in Arizona is more than 4 times that of White Non-Hispanics. This disparity is presented in Figure 4 below.

Figure 4: Arizona 5-Year Emergent HIV/AIDS Rates by Race/Ethnicity